therapy, and various mental disorders were combined with these results to create a model that is almost 80 percent accurate. Mortality can be predicted using the variables vascular catheterization, respiratory intubation, and coronary atherosclerosis with an accuracy of 63.4 percent. **CONCLUSION:** A bimodal trend in the age of drug abusers suggests two different types of drug abuse. The most likely explanation is the abuse of recreational drugs around the age of 40 and the abuse or misuse of prescription drugs around the age of 80. Mortality can be predicted so accurately using only three variables because these procedures are associated with the highest probability of death.

PMH4

ATYPICAL ANTIPSYCHOTIC MEDICATIONS IN THE TREATMENT OF SCHIZOPHRENIA: A BAYESIAN META-ANALYSIS OF DIRECT AND INDIRECT COMPARISONS

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OBJECTIVE: The purpose of this study was to evaluate the relative efficacy of different atypical antipsychotic medications (AAPs) in the treatment of schizophrenia using a Bayesian mixed treatment comparison (MTC) model. **METHODS:** The Cochran central register of controlled trials and PubMed database were searched to identify randomized controlled clinical trials assessing the efficacy of AAPs (olanzapine, risperidone, clozapine, aripiprazole, quetiapine, ziprasidone) in the treatment of schizophrenia. Studies were included if they used change in the Positive and Negative Syndrome Scale (PANSS) as an outcome measure. Findings from these studies were analyzed using Bayesian meta-analysis of direct and indirect comparisons. Both, fixed and random effects models were employed in the analysis. **RESULTS:** Twenty eight trials were identified, which included a total of 6023 patients. The fixed effects model indicated that clozapine and olanzapine had significantly greater improvements on the PANSS overall scale (median change from baseline: 19.4 (95% credible interval [CrI] 19.2–19.5) and 19.3 (95% [CrI] 19.3–19.4) for clozapine and olanzapine respectively) than all other AAPs. In the rank order analysis, clozapine had a 82% probability of being the best treatment. Clozapine showed significantly more improvements on the positive subscale (mean change from baseline 5.4 (95% [CrI] 5.2–5.5), and 100% probability of being the best treatment). On the negative subscale, clozapine and olanzapine showed significantly more improvements than other APPs. However, the random effects model found no significant differences among the AAPs in the magnitude of improvements on the PANSS overall scale, as well as the positive and negative subscales. This may be due to substantial inter-study variation. **CONCLUSION:** Using a fixed effects model, clozapine and olanzapine were found to be significantly more efficacious, but these findings were not supported by the random effects analysis. More direct comparisons are needed to make definitive conclusions about the relative efficacy of these agents.

PMH5

REHOSPITALIZATION AFTER DISCONTINUATION OF PALIPERIDONE ER IN PATIENTS WITH SCHIZOPHRENIA

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OBJECTIVE: One way to evaluate effectiveness of antipsychotics is to measure frequency of symptomatic relapses in patients with schizophrenia. The occurrence and duration of hospitalizations are important markers of potential relapses. This study assessed differences in days hospitalized among schizophrenic patients receiving paliperidone extended-release tablets (paliperidone ER) during the 52-week open-label extension (OLE) phases of three double-blind (DB) trials as compared to treatment as usual (TAU) in the six months following the OLE phases of these trials. **METHODS:** Data on resource use was collected through retrospective chart review. Average number of hospital days during OLE and TAU phases was calculated including the use of bootstrap resampling methods to assess statistical significance of differences. Total person years were calculated for OLE and TAU phases to account for different lengths of observation. Antipsychotic use during TAU phase was also evaluated. Paliperidone ER was not commercially available during TAU phase. **RESULTS:** In this analysis, patients (n = 71) were from the US (31.0%), Canada (21.1%) and Malaysia (47.9%). Mean (±SD) patient age was 37.9 (±10.5) years; and the majority were male (70.4%). During the OLE, the mean paliperidone ER treatment duration (±SD) was 212.9 (±141.2) days, and the mean dose was 11.4 (±2.1) mg. Patients experienced an average of 5.0 and 15.3 hospital days per person year in OLE and TAU phases, respectively, indicating that a mean increase of 10.3 days of hospitalization was observed during TAU phase (95%CI 2.3,19.2, P = 0.006). During TAU phase, the treatments received were second-generation antipsychotics (SGAs) (52.1%), first-generation antipsychotics (FGAs) (9.9%), or both FGAs and SGAs (14.1%). **CONCLUSION:** Patients discontinuing paliperidone ER after the OLE phases experienced more hospital days compared to the OLE phases where they received paliperidone ER. Whether this increase in hospital days is associated with a greater frequency or severity of relapses remains to be tested.

PMH6

OPTIMAL THRESHOLDS OF EARLY NON-RESPONSE TO ATYPICAL ANTIPSYCHOTICS: APPLICATION OF SIGNAL DETECTION ANALYSIS

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OBJECTIVE: This study used signal detection methods to identify the optimal magnitude of early non-response to antipsychotic medication at various early time points that best predicts subsequent non-response at eight weeks, using different criteria of subsequent non-response. This analysis was implemented separately for schizophrenia patients with at least moderate symptom severity, and for patients with lesser symptom severity. **METHODS:** Data were pooled from five randomized, double-blind clinical trials of atypical antipsychotics in the treatment of patients with schizophrenia, schizoaffective disorder, or schizophreniform disorder, and included 1437 patients (n = 1137 with at least moderate symptom severity; n = 300 with lesser symptom severity). Signal detection methods were used to identify the optimal response threshold based on improvement from baseline on the Positive and Negative Syndrome Scale (PANSS) total score at different early time points (Week 1 to Week 4 of treatment) to predict subsequent non-response at eight weeks, while controlling the false positive rate at 30% or less. **RESULTS:** The optimal thresholds for patients with at least moderate symptom severity were 7–12% at Week 1, 14–23% at Week 2, 20–38% at Week 3, and 26–45% at Week 4. For patients with lesser symptom severity, the optimal thresholds were 3–4% at Week 1, 7–12% at Week 2, 6–14% at Week 3, and 15–20% at Week 4. Results were validated using data from another clinical trial. **CONCLUSION:** Different early response thresholds appear to maximize identification of subsequent non-responders to antipsychotic medica-